

Syngenta Herbicide Programs in Enlist Soybean Brooklyn, WI 2023

Trial Information

Trial Sponsor(s): Syngenta

Objective: Compare PRE rates and POST application timings of soybean herbicides

Crop: Soybean

Variety: NK20-B6E

Weed species (pressure): glyphosate-R waterhemp (moderate)
velvetleaf (low-moderate)
woolly cupgrass (high)

Herbicide Application(s): PRE – 5/17
POST – 6/14 (V3 soybean)
LPOST – 6/29 (V4/V5 soybean)

For the full report see trial #23-BRO-SB08 in the [2023 Wisconsin Weed Science Research Report](#)



Cropping Systems Weed Science
UNIVERSITY OF WISCONSIN-MADISON

syngenta

Syngenta Herbicide Programs in Enlist Soybean

Brooklyn, WI 2023

Trt #	Herbicide (rate acre ⁻¹)	Waterhemp (%)					Velvetleaf (%)			Yield ^b bu acre ⁻¹	
		6/8	6/14	6/29	7/13	10/3	6/14	6/29	10/3		
1	Untreated Check	0	0	0	0	0	0	0	0	29 b	
Two-Pass – PRE (5/17) fb POST (6/14)											
2	Tendovo (1.5 qt) fb Enlist One (2 pt) + Roundup PM3 (28 oz) + AMS ^c	100	85	100	98	93	100	100	100	53 a	
3	Tendovo (1.5 qt) fb Enlist One (2 pt) + Roundup PM3 (28 oz) + Dual II Magnum (1.25 pt) + AMS ^c	95	80	99	98	96	100	100	100	54 a	
6	Tendovo (2.1 qt) fb Enlist One (2 pt) + Roundup PM3 (28 oz) + AMS ^c	100	100	99	98	96	100	100	100	55 a	
7	Tendovo (2.1 qt) fb Enlist One (2 pt) + Roundup PM3 (28 oz) + Dual II Magnum (1.25 pt) + AMS ^c	100	95	100	99	96	100	100	100	54 a	
10	Prefix (2 pt) + Metricor DF (8 oz) fb Enlist One (2 pt) + Roundup PM3 (28 oz) + Dual II Magnum (1.25 pt) + AMS ^c	100	90	100	100	100	80	100	100	55 a	
Two-Pass – PRE (5/17) fb LPOST (6/29)											
4	Tendovo (1.5 qt) fb Enlist One (2 pt) + Roundup PM3 (28 oz) + AMS ^c	100	88	76	97	100	100	99	100	57 a	
5	Tendovo (1.5 qt) fb Enlist One (2 pt) + Roundup PM3 (28 oz) + Dual II Magnum (1.25 pt) + AMS ^c	100	95	81	94	99	100	100	100	54 a	
8	Tendovo (2.1 qt) fb Enlist One (2 pt) + Roundup PM3 (28 oz) + AMS ^c	100	100	85	98	100	100	100	100	56 a	
9	Tendovo (2.1 qt) fb Enlist One (2 pt) + Roundup PM3 (28 oz) + Dual II Magnum (1.25 pt) + AMS ^c	98	95	88	97	99	100	100	100	54 a	
11	Prefix (2 pt) + Metricor DF (8 oz) fb Enlist One (2 pt) + Roundup PM3 (28 oz) + Dual II Magnum (1.25 pt) + AMS ^c	100	100	86	98	99	88	73	100	54 a	
12	Zidua PRO (4.5 oz) fb Enlist One (2 pt) + Roundup PM3 (28 oz) + Dual II Magnum (1.25 pt) + AMS ^c	88	88	75	94	97	100	100	100	57 a	
13	Zidua PRO (6 oz) fb Enlist One (2 pt) + Roundup PM3 (28 oz) + Dual II Magnum (1.25 pt) + AMS ^c	98	65	84	96	99	100	100	100	55 a	
		LSD ($\alpha=0.10$)	6	18	7	ns	3	11	5	ns	4
		p value	0.026	0.10	<.001	0.219	0.027	0.083	<.001	0.467	<0.001

^aVisual control from 70-100% is illustrated on a color scale with green representing greater weed control values.

^bYield values with the same letter are not significantly different.

^cAll POST applications included AMSOL (liquid AMS) applied at 2.5% v/v.

Syngenta Herbicide Programs in Enlist Soybean

Brooklyn, WI 2023

Trt #	Herbicide (rate acre ⁻¹)	Necrosis (%)		Woolly Cupgrass (%)					Yield ^b bu acre ⁻¹
		6/29	7/13	6/8	6/14	6/29	7/13	10/3	
1	Untreated Check	0	0	0	0	0	0	0	29 b
Two-Pass – PRE (5/17) fb POST (6/14)									
2	Tendovo (1.5 qt) fb Enlist One (2 pt) + Roundup PM3 (28 oz) + AMS ^c	4.0	0.0	81	79	100	95	88	53 a
3	Tendovo (1.5 qt) fb Enlist One (2 pt) + Roundup PM3 (28 oz) + Dual II Magnum (1.25 pt) + AMS ^c	7.0	0.0	72	70	99	97	93	54 a
6	Tendovo (2.1 qt) fb Enlist One (2 pt) + Roundup PM3 (28 oz) + AMS ^c	4.3	0.0	86	88	98	97	91	55 a
7	Tendovo (2.1 qt) fb Enlist One (2 pt) + Roundup PM3 (28 oz) + Dual II Magnum (1.25 pt) + AMS ^c	6.3	0.0	88	84	100	98	95	54 a
10	Prefix (2 pt) + Metricor DF (8 oz) fb Enlist One (2 pt) + Roundup PM3 (28 oz) + Dual II Magnum (1.25 pt) + AMS ^c	6.3	0.0	90	89	100	99	97	55 a
Two-Pass – PRE (5/17) fb LPOST (6/29)									
4	Tendovo (1.5 qt) fb Enlist One (2 pt) + Roundup PM3 (28 oz) + AMS ^c	0.0	4.0	83	76	78	100	100	57 a
5	Tendovo (1.5 qt) fb Enlist One (2 pt) + Roundup PM3 (28 oz) + Dual II Magnum (1.25 pt) + AMS ^c	0.0	5.3	87	83	79	100	100	54 a
8	Tendovo (2.1 qt) fb Enlist One (2 pt) + Roundup PM3 (28 oz) + AMS ^c	0.0	4.3	87	82	85	100	100	56 a
9	Tendovo (2.1 qt) fb Enlist One (2 pt) + Roundup PM3 (28 oz) + Dual II Magnum (1.25 pt) + AMS ^c	0.0	5.3	83	80	85	100	100	54 a
11	Prefix (2 pt) + Metricor DF (8 oz) fb Enlist One (2 pt) + Roundup PM3 (28 oz) + Dual II Magnum (1.25 pt) + AMS ^c	0.0	5.8	77	75	85	100	100	54 a
12	Zidua PRO (4.5 oz) fb Enlist One (2 pt) + Roundup PM3 (28 oz) + Dual II Magnum (1.25 pt) + AMS ^c	0.0	5.5	72	64	75	100	100	57 a
13	Zidua PRO (6 oz) fb Enlist One (2 pt) + Roundup PM3 (28 oz) + Dual II Magnum (1.25 pt) + AMS ^c	0.0	5.3	86	78	83	99	100	55 a
		LSD ($\alpha=0.10$)	1	0.6					
		p value	<.001	<.001	ns	ns	6	3	4
					0.113	0.115	<.001	0.01	<.001
									4
									<0.001

^aVisual control from 70-100% is illustrated on a color scale with green representing greater weed control values.

^bYield values with the same letter are not significantly different.

^cAll POST applications included AMSOL (liquid AMS) applied at 2.5% v/v.

Syngenta Herbicide Programs in Enlist Soybean Brooklyn, WI 2023

Plot pictures taken on 6/14
28 days after the PRE application
The day of the POST application

The numbers in the upper right-hand corner are the average % waterhemp and woolly cupgrass control of 4 replications

28 days after PRE (6/14)

Untreated Check

0%



**28 days after PRE (6/14)
PRE: 1.5 qt Tendovo**

**Waterhemp = 87%
Woolly Cupgrass = 77%**



28 days after PRE (6/14)
PRE: 2.1 qt Tendovo

Waterhemp = 98%
Woolly Cupgrass = 84%



28 days after PRE (6/14)

PRE: 2 pt Prefix + 8 oz Metricor DF

Waterhemp = 95%

Woolly Cupgrass = 82%



28 days after PRE (6/14)
PRE: 4.5 oz Zidua PRO

Waterhemp = 88%
Woolly Cupgrass = 64%



28 days after PRE (6/14)

PRE: 6 oz Zidua PRO

Waterhemp = 65%
Woolly Cupgrass = 78%



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Syngenta Herbicide Programs in Enlist Soybean Brooklyn, WI 2023

Plot pictures taken on 6/29

43 days after the PRE application

15 days after the POST application

The day of the LPOST application

The numbers in the upper right-hand corner are the average % waterhemp and woolly cupgrass control of 4 replications

43 days after PRE (6/29)

Untreated Check

0%



15 days after POST (6/29)

PRE: 1.5 qt Tendovo *fb*

POST: 2 pt Enlist One + 28 oz Roundup PM3 + AMS

Waterhemp = 100%

Woolly Cupgrass = 100%



15 days after POST (6/29)

Waterhemp = 99%

PRE: 1.5 qt Tendovo *fb*

Woolly Cupgrass = 99%

POST: 2 pt Enlist One + 28 oz Roundup PM3 + 1.25 pt Dual II Magnum + AMS



15 days after POST (6/29)

PRE: 2.1 qt Tendovo *fb*

POST: 2 pt Enlist One + 28 oz Roundup PM3 + AMS

Waterhemp = 99%

Woolly Cupgrass = 98%



15 days after POST (6/29)

Waterhemp = 100%

PRE: 2.1 qt Tendovo *fb*

Woolly Cupgrass = 100%

POST: 2 pt Enlist One + 28 oz Roundup PM3 + 1.25 pt Dual II Magnum + AMS



15 days after POST (6/29)

PRE: 2 pt Prefix + 8 oz Metricor DF fb

POST: 2 pt Enlist One + 28 oz Roundup PM3 + 1.25 pt Dual II Magnum + AMS

Waterhemp = 100%

Woolly Cupgrass = 100%



43 days after PRE (6/29)
PRE: 1.5 qt Tendovo

Waterhemp = 79%
Woolly Cupgrass = 80%



43 days after PRE (6/29)
PRE: 2.1 qt Tendovo

Waterhemp = 87%
Woolly Cupgrass = 81%



43 days after PRE (6/29)
PRE: 2 pt Prefix + 8 oz Metricor DF

Waterhemp = 86%
Woolly Cupgrass = 85%



43 days after PRE (6/29)
PRE: 4.5 oz Zidua PRO

Waterhemp = 75%
Woolly Cupgrass = 75%



43 days after PRE (6/29)
PRE: 6 oz Zidua PRO

Waterhemp = 84%
Woolly Cupgrass = 83%



Syngenta Herbicide Programs in Enlist Soybean Brooklyn, WI 2023

Plot pictures taken on 7/13

57 days after the PRE application

29 days after the POST application

14 days after the LPOST application

The numbers in the upper right-hand corner are the average % waterhemp and woolly cupgrass control of 4 replications

57 days after PRE (7/13)

Untreated Check

0%



29 days after POST (7/13)

PRE: 1.5 qt Tendovo *fb*

POST: 2 pt Enlist One + 28 oz Roundup PM3 + AMS

Waterhemp = 98%

Woolly Cupgrass = 95%



29 days after POST (7/13)

PRE: 1.5 qt Tendovo *fb*

POST: 2 pt Enlist One + 28 oz Roundup PM3 + 1.25 pt Dual II Magnum + AMS

Waterhemp = 98%

Woolly Cupgrass = 97%



29 days after POST (7/13)

PRE: 2.1 qt Tendovo *fb*

POST: 2 pt Enlist One + 28 oz Roundup PM3 + AMS

Waterhemp = 98%

Woolly Cupgrass = 97%



29 days after POST (7/13)

Waterhemp = 99%

PRE: 2.1 qt Tendovo *fb*

Woolly Cupgrass = 98%

POST: 2 pt Enlist One + 28 oz Roundup PM3 + 1.25 pt Dual II Magnum + AMS



29 days after POST (7/13)

Waterhemp = 100%

PRE: 2 pt Prefix + 8 oz Metricor DF fb

Woolly Cupgrass = 99%

POST: 2 pt Enlist One + 28 oz Roundup PM3 + 1.25 pt Dual II Magnum + AMS



14 days after LPOST (7/13)

Waterhemp = 97%

PRE: 1.5 qt Tendovo Tendovo *fb*

Woolly Cupgrass = 100%

LPOST: 2 pt Enlist One + 28 oz Roundup PM3 + AMS



14 days after LPOST (7/13)

Waterhemp = 94%

PRE: 1.5 qt Tendovo Tendovo *fb*

Woolly Cupgrass = 100%

LPOST: 2 pt Enlist One + 28 oz Roundup PM3 + 1.25 pt Dual II Magnum + AMS



14 days after LPOST (7/13)

PRE: 2.1 qt Tendovo *fb*

LPOST: 2 pt Enlist One + 28 oz Roundup PM3 + AMS

Waterhemp = 98%

Woolly Cupgrass = 100%



14 days after LPOST (7/13)

Waterhemp = 97%

PRE: 2.1 qt Tendovo *fb*

Woolly Cupgrass = 100%

LPOST: 2 pt Enlist One + 28 oz Roundup PM3 + 1.25 pt Dual II Magnum + AMS



14 days after LPOST (7/13)

Waterhemp = 98%

PRE: 2 pt Prefix + 8 oz Metricor DF *fb*

Woolly Cupgrass = 100%

LPOST: 2 pt Enlist One + 28 oz Roundup PM3 + 1.25 pt Dual II Magnum + AMS



14 days after LPOST (7/13)

Waterhemp = 94%

PRE: 4.5 oz Zidua PRO *fb*

Woolly Cupgrass = 100%

LPOST: 2 pt Enlist One + 28 oz Roundup PM3 + 1.25 pt Dual II Magnum + AMS



14 days after LPOST (7/13)

PRE: 6 oz Zidua PRO *fb*

LPOST: 2 pt Enlist One + 28 oz Roundup PM3 + 1.25 pt Dual II Magnum + AMS

Waterhemp = 96%

Woolly Cupgrass = 99%



Syngenta Herbicide Programs in Enlist Soybean Brooklyn, WI 2023

Plot pictures taken on 10/3
2 days before soybean harvest

The numbers in the upper right-hand corner are the average % waterhemp and woolly cupgrass control of 4 replications

Soybean Harvest (10/3)

0%

Untreated Check



Soybean Harvest (10/3)

PRE: 1.5 qt Tendovo *fb*

POST: 2 pt Enlist One + 28 oz Roundup PM3 + AMS

Waterhemp = 93%

Woolly Cupgrass = 88%



Soybean Harvest (10/3)

Waterhemp = 96%

PRE: 1.5 qt Tendovo *fb*

Woolly Cupgrass = 93%

POST: 2 pt Enlist One + 28 oz Roundup PM3 + 1.25 pt Dual II Magnum + AMS



Soybean Harvest (10/3)

PRE: 2.1 qt Tendovo *fb*

POST: 2 pt Enlist One + 28 oz Roundup PM3 + AMS

Waterhemp = 96%

Woolly Cupgrass = 91%



Soybean Harvest (10/3)

Waterhemp = 96%

PRE: 2.1 qt Tendovo *fb*

Woolly Cupgrass = 95%

POST: 2 pt Enlist One + 28 oz Roundup PM3 + 1.25 pt Dual II Magnum + AMS



Soybean Harvest (10/3)

Waterhemp = 100%

PRE: 2 pt Prefix + 8 oz Metricor DF fb

Woolly Cupgrass = 97%

POST: 2 pt Enlist One + 28 oz Roundup PM3 + 1.25 pt Dual II Magnum + AMS



Soybean Harvest (10/3)
PRE: 1.5 qt Tendovo Tendovo *fb*
LPOST: 2 pt Enlist One + 28 oz Roundup PM3 + AMS

Waterhemp = 100%
Woolly Cupgrass = 100%



Soybean Harvest (10/3)
PRE: 1.5 qt Tendovo Tendovo fb
LPOST: 2 pt Enlist One + 28 oz Roundup PM3 + 1.25 pt Dual II Magnum + AMS

Waterhemp = 99%
Woolly Cupgrass = 100%



Soybean Harvest (10/3)

PRE: 2.1 qt Tendovo *fb*

LPOST: 2 pt Enlist One + 28 oz Roundup PM3 + AMS

Waterhemp = 100%

Woolly Cupgrass = 100%



Soybean Harvest (10/3)

Waterhemp = 99%

PRE: 2.1 qt Tendovo *fb*

Woolly Cupgrass = 100%

LPOST: 2 pt Enlist One + 28 oz Roundup PM3 + 1.25 pt Dual II Magnum + AMS



Soybean Harvest (10/3)

Waterhemp = 99%

PRE: 2 pt Prefix + 8 oz Metricor DF *fb*

Woolly Cupgrass = 100%

LPOST: 2 pt Enlist One + 28 oz Roundup PM3 + 1.25 pt Dual II Magnum + AMS



Soybean Harvest (10/3)

Waterhemp = 97%

PRE: 4.5 oz Zidua PRO fb

Woolly Cupgrass = 100%

LPOST: 2 pt Enlist One + 28 oz Roundup PM3 + 1.25 pt Dual II Magnum + AMS



Soybean Harvest (10/3)

Waterhemp = 99%

PRE: 6 oz Zidua PRO fb

Woolly Cupgrass = 100%

LPOST: 2 pt Enlist One + 28 oz Roundup PM3 + 1.25 pt Dual II Magnum + AMS

